

# **ABSTRACT**

## **Title:**

Effect of core training on anterior shoulder instability on semiprofessional rugby players.

## **The concept of the problem:**

With Rugby Union football being a contact-collision sport there is a high risk of injury incidence, especially for the upper extremities. The anterior shoulder dislocation carries the highest incidence and severity and may frequently lead to an anterior shoulder instability and is therefore a risk factor for decreasing sporting performance. Working with anterior shoulder instability on a complex basis, there are many possibilities to influence this problem and one of them is incorporating a “core-training” program into functional training patterns. In sports, the core provides a foundation upon which muscles of the extremities and their coordination rely.

## **Objectives:**

To evaluate the incidence of anterior shoulder instability on semiprofessional rugby players and, subsequently, to attest the effectivity of the “core-training” exercise program on anterior shoulder instability of these athletes, on explosive power of the upper extremities and the performance of “medvěd”- an examination of the “Integrated Stabilizing System of the Spine” (HSSP) from Kolář.

## **Methods:**

The theoretical part follows up the given issue as a research and theoretical overview of the current findings based mainly on foreign literature. The practical part is dedicated to the application of an core exercise program. It was put together for the purpose of this theses, for a specific group of athletes during a three month period following the program 3x a week. All 10 probands were semiprofessional rugby players aged 19-31.

**Results:**

The initial examination proved at least one positive test for anterior shoulder instability. Because of the following of the designed program there was a significant betterment of all probands at the final examination in at least on test for anterior shoulder instability. In 70% of those there was an elimination of all positive results in the output examination. Also, there was an improvement in the evaluation on explosive power of the upper extremities (medicine-ball throw, average betterment of 0,76 m) and the performance of “medvěd”- an examination of the “Integrated Stabilizing System of the Spine” (HSSP) from Kolář (average betterment of 4,1 mistakes).

**Keywords:**

rugby, anterior shoulder instability, core training